MILL CREEK 2 AND 3 HYDROELECTRIC SYSTEMS, MILL CREEK 3 FOREBAY
Mill Creek
Yucaipa vicinity
San Bernardino County
California

HAER No. CA-2272-N

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of Interior
1111 Jackson Street
Oakland, California 94607

HISTORIC AMERICAN ENGINEERING RECORD

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MILL CREEK 3 FOREBAY

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Location: The Mill Creek 3 Forebay (MC 3 Forebay) is located on Yucaipa Ridge with an altitude of 5,300 feet within Mill Creek Canyon in San Bernardino County, California. The MC 3 Forebay is located on USGS topographic map Yucaipa, Sections 17; T. 1S., R. 1W.).

Significance: The MC 3 Forebay is a key component in the MC 3 system. It consists of a reservoir that feeds the pressure pipe (known as the penstock) that connects to the powerhouse. The MC 2 Forebay is located at a higher elevation, to allow the water to fall at a great pressure to operate the system, aids in regulating the water flow into the penstock. This process also allows the water to settle prior to entering the penstock, preventing silt from entering the system. MC 3 is one of the earliest examples of a high-head hydroelectric system within the United States and one of the first commercial three-phase alternating current stations in California. Three-phase alternating later became the industry standard.

Description: The MC 3 Forebay is located on the top of Yucaipa Ridge at an altitude of 5,300 feet.[1] It is an irregularly shaped manmade body of water with a control tower located at the southern end. There is a concrete spillway located at the north end of the reservoir, used as a channel for water overflow. The spillway links to a concrete box and transitions to a metal aboveground pipe. This water continues to the Cottage Canyon natural spillway. There is a surge pipe on the west side of the pond. It is connected to a valve and an underground pipe used for drainage. The surge pipe also allows air in so as to relieve pressure in the pipes.

History: The MC 3 Forebay was constructed as part of the Mill Creek 3 Hydroelectric System. The MC 3 system was constructed between 1899 and 1903 by the Redlands Electric Light and Power Company, later absorbed by Edison Electric Company of Los Angeles in 1901. The MC 3 system is still in operation today and is owned and operated by Southern California Edison. Please see the Historic Context section in the general Historic American Engineering Record for the Mill Creek 2 and 3 Hydroelectric Systems (HAER No. CA-2272) for additional information.

Sources:

Fowler, Frederick Hall. *Hydroelectric Power Systems of California and Their Extensions into Oregon and Nevada, Water-Supply Paper 493*. Washington, D.C.: Government Printing Office, 1923.

White, David R. M. "Cultural Resource Management Plan for the Southern California Edison Company Mill Creek Hydroelectric Project (FERC Project No. 1934) San Bernardino County, California," June 1993.

[1] Philip de Barros and Carmen Weber, "Cultural Resources Inventory and Evaluation of the Mill Creek Hydroelectric Project FERC Project No 1934," March 1993, 2-1.

Low, George P. "The Generating, Transmission and Distribution Systems of The Edison Electric Company of Los Angeles, Cal.," *The Journal of Electricity, Power and Gas.* vol. XIII, no. 1. January, 1903.

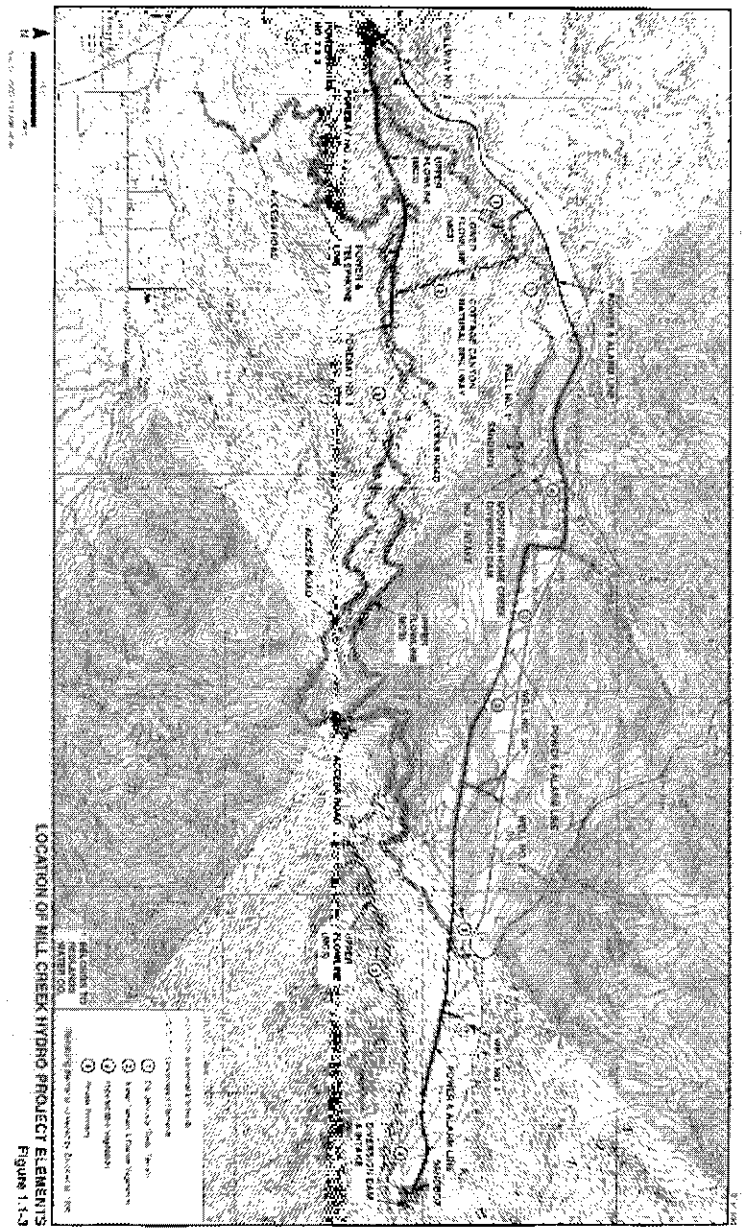
"Means Much to Redlands: Big Light and Power Deal Closed," *Los Angeles Times.* May 25, 1901, 8.

"Redlands Electric Light & Power Co., Edition Electric Co. of Los Angeles, Mill Creek Powerhouses," *National Register of Historic Places Inventory – Nomination Form*, April 30, 1985, item number 7, 10.

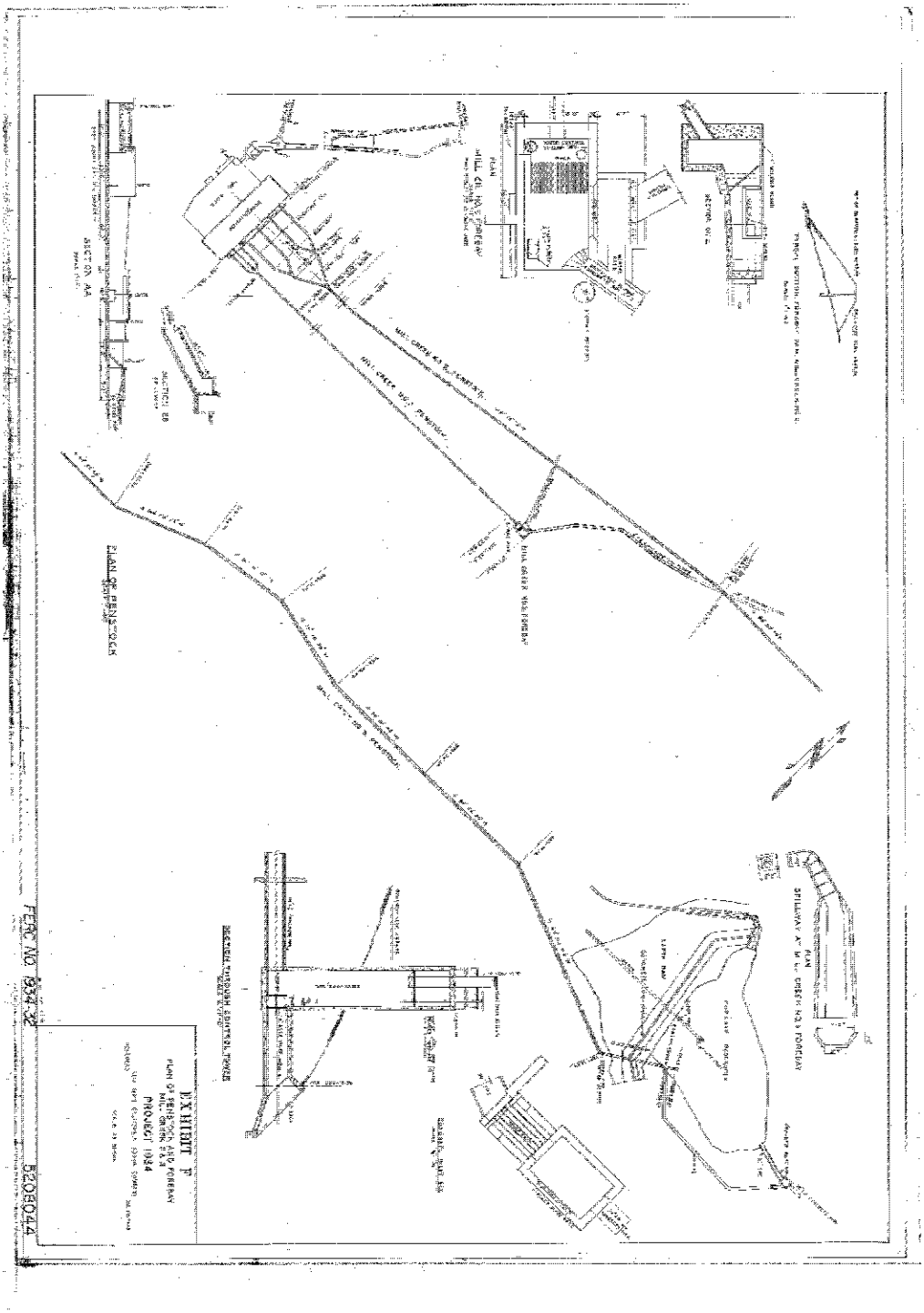
Secord, Paul R. "National Register Nomination: Southern California Edison Company, Mill Creek Hydroelectric System," National Park Service, 1985. The building has been declared a contributing element to the Mill Creek Hydroelectric Project Historic District.

Historian: Christeen Taniguchi, Senior Architectural Historian, and Nicole Collum, Architectural Historian II, Galvin Preservation Associates, 1611 S. Pacific Coast Highway, #104, Redondo Beach, CA 90277, 2008-2009.

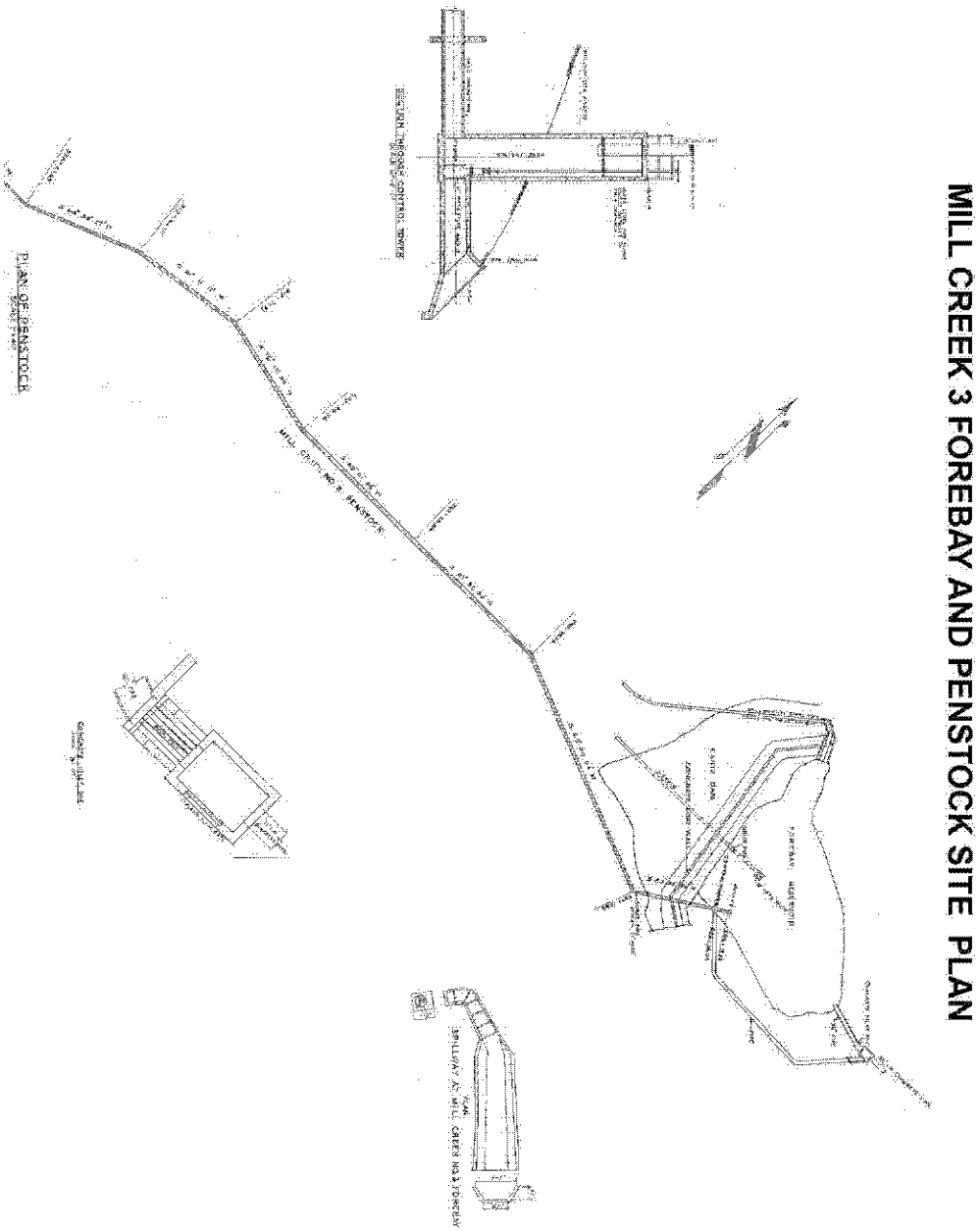
Project Information: MC 2 has not operated since 1992 when it was damaged during floods. It was not, however, decommissioned. The Southern California Edison Company, in conjunction with the San Bernardino National Forest, the agency that owns the property, proposes to formally decommission the facility. This process will include filling the sandbox and forebay with slurry, and removing the metal features. Although MC 3 is still in operation, it is also being recorded as part of this project because of the system's close association with MC 2.



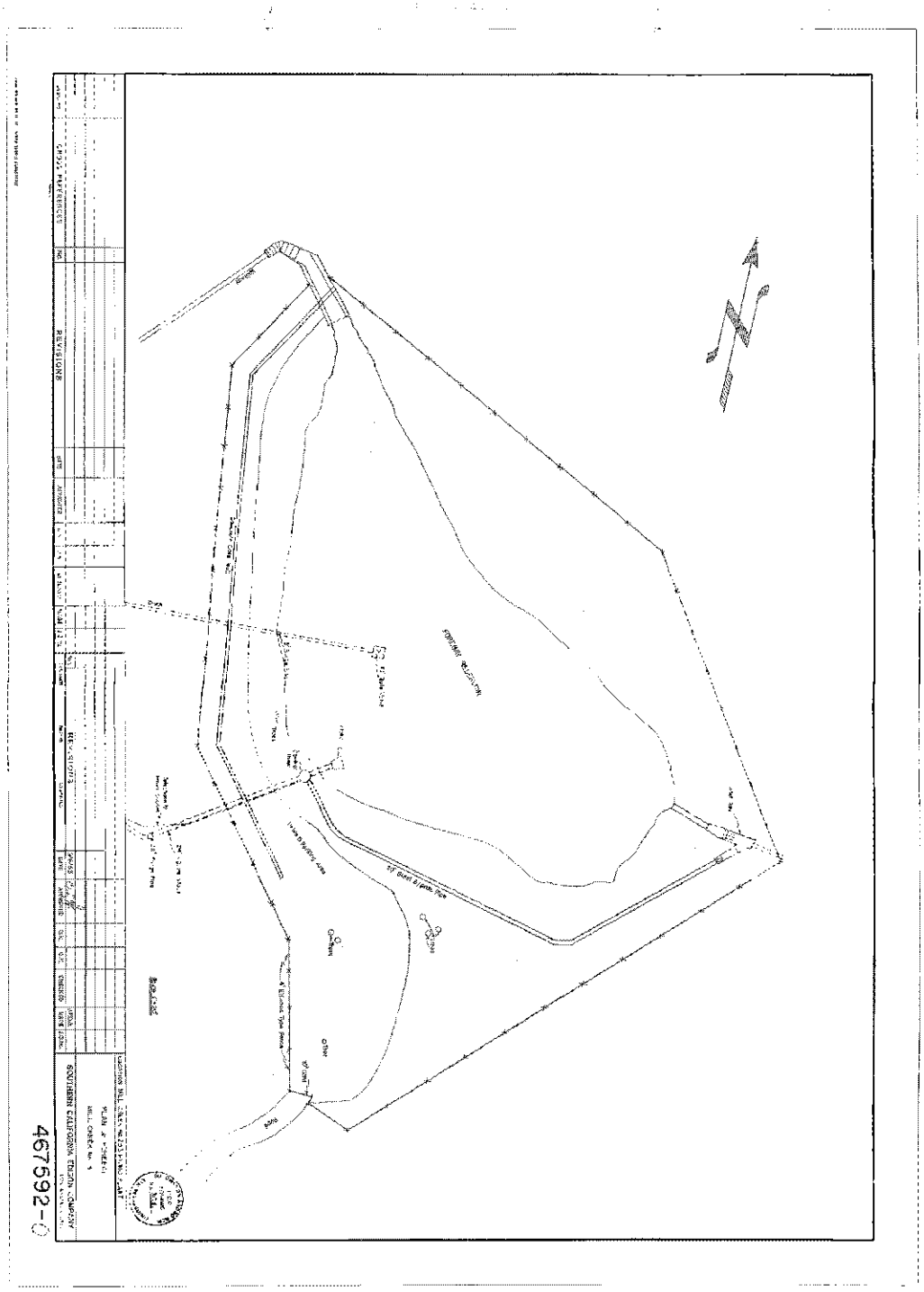
Location of Mill Creek Hydro Project Elements. (Map Courtesy of Southern California Edison)



Plan of Mill Creek No. 3 Forebay and Penstock. (Drawing courtesy of Southern California Edison).



Mill Creek 3 Forebay and Penstock Plan (Plan Courtesy of Southern California Edison).



Plan of Mill Creek No. 3 Forebay. (Drawing courtesy of Southern California Edison)